IN THE SPECIFICATION:

Please replace the paragraph starting at page 2, line 10 with the following amended paragraph:

The disclosed method and apparatus includes a transmitter for transmitting ACK/NAK information on an ACK/NAK channel, and a channel gate for gating the ACK/NAK channel based on whether a companion receiver has detected a matching preamble in a data unit received by the receiver. In one ~~embodiement~~ embodiment, the data unit is a first data unit in a series of data units comprising a data packet, and the channel gate may prevent transmission of the ACK/NAK channel when the receiver has failed to receive the matching preamble in the data unit. In one ~~embodiement~~ embodiment, the transmitter may include a BPSK modulator for modulating the ACK/NAK information, and a multiplier for Walsh covering a result of the BPSK modulator to produce Walsh covered ACK/NAK information for transmission on the ACK/NAK channel. The method and apparatus may include a summer for summing the ACK/NAK channel and a data rate control/pilot channel. The ACK/NAK channel in an exemplary embodiment may ~~be for~~ have a duration of a portion of a time slot.

Please replace the paragraph starting at page 3, line 27 with the following amended paragraph:

FIG. 1 illustrates an exemplary communication system 100 capable of implementing embodiments of the invention. A first terminal 104 transmits signals to a second terminal 106 over a forward link 108a, and receives signals from the second terminal 106 over a reverse link 108b. Terminals 104 and 106 may be operating as a transmitter unit or a receiver unit, or both concurrently, depending on whether data is being transmitted from, or received at, the respective terminals 104 and 106. Terminals 106 and 104 may be respectively a mobile station (MS) and a base station (BS) or any other ~~communication~~ communication devices. Forward and reverse links 108a and 108b may be electromagnetic spectra or ~~wirline~~ wireline. A BS controller 102 may be coupled to BS 104 for controlling communication system 100.

Please replace the last paragraph on page 4, commencing on line 24, with the following amended paragraph:

In general, a communication link comprises a set of channels carrying logically distinct types of information. These channels may be transmitted according to a scheme of time division multiplexing (TDM), code division multiplexing (CDM), frequency division multiplexing (FDM), or a combination thereof. In a TDM scheme, the channels are distinguished in time domain, where the channels are transmitted one at a time. In a CDM scheme, the channels may be distinguished by a pseudorandom orthogonal sequence. A code division communication system is disclosed in U.S. Patent ~~Serial~~ No. 5,103,459, entitled "SYSTEM AND METHOD AND APPARATUS FOR GENERATING SIGNAL WAVEFORMS IN A CDMA CELLULAR TELEPHONE SYSTEM ~~HIGH RATE PACKET DATA TRANSMISSION~~" assigned to the assignee of the present invention and incorporated by reference herein.

Please replace the paragraph starting at page 5, line 16 with the following amended paragraph:

In an exemplary embodiment, each MS monitors at least one signal quality metric of signals received from BSs. An MS (for example MS 106) receiving forward link signals from multiple BSs identifies the BS associated with the highest quality forward link signal (for example BS 104). MS 106 then generates a prediction of a data rate at which the packet error rate (PER) of data packets received from the selected BS 104 will not exceed a target PER. A target PER of approximately 2% may be used. MS 106 then computes a rate at which a "tail probability" is greater than or equal to the target PER. The tail probability is the probability that the actual signal quality during the packet transmission period is less than the signal quality required for successful decoding of a packet correctly at a given rate. MS 106 then sends a message on the reverse link 108b specifically to the selected BS 104, requesting the data rate at which the specific selected BS may transmit forward link data to the MS 104. The message may be sent on a data rate control channel (DRC). The use of DRC is disclosed in [[a]] application serial number 08/963,386 entitled: "A METHOD AND AN APPARATUS FOR HIGH RATE DATA PACKET TRANSMISSION," now U.S. Patent No. 6,574,211, issued June 3, 2003 to

Padovani et al., assigned to the assignee of the present invention, and incorporated by reference herein. A dedicated reverse link medium access channel (R-MACCH) may be utilized for carrying the DRC information, a reverse rate indicator (RRI), and selective acknowledgement (SA) information.

Please replace the paragraph starting at page 6, line 14 with the following amended paragraph:

In one ~~embodiement~~ embodiment, the data packet for transmission includes a preamble within the first time slot of each new forward link packet for identifying the intended destination MS. Each MS receiving the preamble decodes the information and, based on the decoded preamble, establishes whether it is the intended destination of the data packet. The intended destination MS begins decoding the data in the associated time slot. The destination MS determines the data rate of the data in the forward link based on the DRC request message.. The number of forward link time slots used to transmit a packet varies based on the data rate at which the packet is sent. Packets sent at a lower rate are sent using a greater number of time slots. The destination MS decodes the received data packet and evaluates a quality metric associated with the received data packet. The quality metric of a packet may be defined by a formula in accordance with a content of the packet, e.g., a parity bit, a cyclic redundancy check (CRC), and etc. The evaluated quality metric and the quality metric contained in the received packet are compared, and based on the comparison an appropriate SA is generated. The SA may be ACK based, which includes sending an ACK message from the MS to the BS if a data packet is correctly decoded, and no message is sent when the data packet is incorrectly decoded. If the SA is NAK based, ~~which includes sending~~ a NAK message is sent from the MS to the BS only if a data packet is incorrectly decoded.

Please replace the paragraph starting at page 8, line 7 with the following amended paragraph:

FIG. 3 is an exemplary flowchart of a method for a BS to use a Quick Automatic Request (QARQ) scheme to transmit or retransmit a packet to a MS in accordance with an ~~embodiement~~ embodiment. At step 300, the BS receives a payload unit intended for transmission to a MS. At

step 302, the BS determines whether the payload unit is a payload unit to be transmitted or a payload unit to be retransmitted. A retransmission request may be initiated only by a radio link protocol (RLP) at this step. If the payload unit is to be transmitted, the method continues to step 306, in which the payload unit is provided to a first-time queue. If the payload unit is to be retransmitted, the method continues in step 304, in which the payload unit is provided to a retransmission queue. At step 308, the BS assembles payload units intended for a particular MS to a packet, the structure of which is determined in accordance with a transmission data rate. The data rate of the packet is based on the DRC feedback signal received over the reverse link from the destination MS. The data packet may be transmitted over multiple time slots. The first time slot is transmitted with the preamble. The preamble identifies the intended destination MS. The preamble could alternatively be transmitted in every forward link time slot. At step 310, the BS transmits the data packet in accordance with a scheduler order. After the data packet has been transmitted, the BS tests at step 312 if a SA corresponding to the transmitted data packet was received.

Please replace the paragraph starting at page 9, line 20 with the following amended paragraph:

At step 410, the evaluated quality metric and the quality metric information contained in the received packet are compared. If the evaluated quality metric and the quality metric contained in the received packet do not match, indicating improper decoding of the packet, an appropriate SA is sent at step 412. The SA may be a NAK response. A timer for the SA sent then starts at step 414. The purpose of the timer is to limit a period for which the MS waits for retransmission of the payload units of the incorrectly decoded packet. If the payload units of the incorrectly decoded packet are not received within the timer expiration period for the NAK[[,]] associated with the incorrectly decoded packet, the QARQ processing is aborted and the RLP handles the missing payload units.

Please replace the paragraph starting at page 9, line 31 with the following amended paragraph:

If the packet was correctly decoded at step 410, an appropriate SA is sent at step 416. The payload unit(s) contained in the packet are then stored in a buffer at step 418. At step 420, the RLP sequence ~~number~~ numbers of the payload units is tested against expected values of the RLP sequence ~~number~~ numbers.

Please replace the paragraph starting at page 10, line 3 with the following amended paragraph:

If the RLP sequence ~~number~~ numbers ~~indicates~~ indicate contiguity, it means that all the payload units of the packet transmitted to the MS were properly received. Consequently, all the payload units with contiguous sequence numbers contained in the buffer are provided to an RLP layer at step 424. If the RLP sequence ~~number~~ numbers ~~indicates~~ indicate non-contiguity, the timer corresponding to the last NAK sent (which was started at step 414) is checked at step 422. If the timer has not expired, the MS waits for retransmission of the missing payload units or expiration of the timer for the last NAK sent.

Please replace the paragraph starting at page 10, line 11 with the following amended paragraph:

If the timer for a particular NAK, and consequently a particular set of missing payload units has expired, the QARQ scheme for these payload units is aborted. All payload units stored in the buffer with sequence ~~number~~ numbers higher than the missing payload units associated with the particular NAK and lower than the missing units associated with the next NAK (if any) are provided to an RLP layer at step 424.

Please replace the paragraph starting at page 10, line 17 with the following amended paragraph:

At step 426, the RLP layer checks the sequence numbers of the delivered payload units. If the sequence ~~number~~ numbers indicates contiguity, the RLP layer delivers data from the buffer to a data sink at step 428. Otherwise, the RLP layer generates an RLP message requesting retransmission of the missing units at step 430. In one embodiment, the RLP

message requests retransmission of all of the missing units in the buffer. In another embodiment, the RLP message requests retransmission of only the latest detected missing payload units. At step 432, the message is transmitted over the reverse link to the serving BS. Although an RLP processor is shown, other protocols allowing retransmission based on sequence number methods can be utilized.

Please replace the second paragraph on page 12, commencing on line 15, with the following amended paragraph:

If a packet was correctly decoded, the payload unit(s) contained in the packet are stored in a buffer 528. The RLP sequence ~~number~~ number(s) of the payload unit(s) contained in the packet is checked by the decoder 522 against an expected value of the RLP sequence ~~number~~ number(s). If the RLP sequence ~~number~~ number(s) indicates contiguity, all the payload units with contiguous sequence numbers contained in the buffer 528 are provided to a RLP processor 526. Otherwise, the timer 530, corresponding to the last NAK sent, is checked. If the time has not expired, the payload units are stored in the buffer 528, and the MS 106 waits for retransmission of the missing payload units or expiration of the timer 530 for the last NAK sent. If the timer 530 for a particular NAK for a particular set of missing payload units has expired, all payload units in the buffer 528 with sequence ~~number~~ numbers higher than the missing units associated with the particular NAK and lower than the missing units associated with the next NAK, if any, are provided to RLP processor 526.

Please replace the last paragraph on page 12, commencing on line 29, with the following amended paragraph:

The RLP processor 526 checks the sequence numbers of the delivered payload units. If the sequence ~~number~~ numbers ~~indicates~~ indicate contiguity, the RLP processor 526 delivers data from the buffer 528 to the data sink 534. Otherwise, the RLP processor 526 instructs RLP message generator 532 to generate an RLP message requesting retransmission of the missing units. In one embodiment, the RLP message requests retransmission of all of the missing units in the buffer 528. In another embodiment, the message requests retransmission of only the

latest detected missing payload units. The message is then transmitted over the reverse link 108B to BS 104.

Please replace the last paragraph on page 13, commencing on line 26, with the following amended paragraph:

FIG. 6 illustrates a timing relationship between a packet received at MS 106 and an SA transmitted from MS 106. In slots n-4 or n-3, MS 106 receives a packet over the forward channel link 108A, and determines if the packet was intended for MS 106. The MS 106 discards the packet if the packet was not intended for the MS 106. Otherwise, the MS 106 decodes the packet, evaluates a quality metric of the packet, and compares the evaluated quality metric with the quality metric contained in the packet in slots ~~n-2 and n-1~~ n-4 or n-3. In slot n, MS 106 sends an SA back to BS 104 over the reverse channel link 108B. In slot n+1, the SA received at BS 104 is decoded and provided to a QARQ controller. In slots n+2, n+3, BS 104 retransmits the packet if so requested. The position of the slots on the received forward link channel 108A and the reverse link channel 108B is synchronized at MS 106. Therefore, the relative position of slots on the forward channel link 108A and the reverse channel link 108B is fixed. BS 104 can measure a round trip delay between BS 104 and MS 106. Consequently, the time slot in which the SA must arrive at the BS 104 can be ascertained.

Please replace the paragraph starting at page 14, line 20 with the following amended paragraph:

An exemplary block diagram of the pilot/DRC channel on the reverse link is shown in FIG. 7 in accordance with an ~~embodiement~~ embodiment. The DRC message is provided to DRC encoder 626, which encodes the message in accordance with a predetermined coding format. Coding of the DRC message is important because the error probability of the DRC message needs to be sufficiently low because incorrect forward link data rate determination impacts the system throughput performance. In the exemplary embodiment, DRC encoder 626 is a rate (8,4) CRC block encoder that encodes the 3-bit DRC message into an 8-bit code word. The encoded DRC message is provided to multiplier 628, which covers the message with the Walsh code that

uniquely identifies the destination BS for which the DRC message is directed. The Walsh code is provided by Walsh generator 624. The covered DRC message is provided to multiplexer (MUX) 630, which multiplexes the message with the pilot data.

Please replace the paragraph starting at page 15, line 31 with the following amended paragraph:

The connected state may be divided into two logical states. The first logical connected state may be defined as when the MS has received a preamble of a data packet and is either awaiting or receiving data units subsequent to the first data unit that carried the preamble. The second logical connected state is when the MS expects to receive a data packet but has not detected the first data unit carrying the preamble. To limit transmission of ACK/NAK messages on the reverse link by several MSs in a connected state, each MS is required to receive the preamble before transmitting ACK/NAK messages. As a result, the MSs in the ~~second~~ first logical connected state transmit ACK/NAK messages. In order for a MS to get into the ~~second~~ first logical connected state, a preamble of the first data unit of a data packet must match at step 404. The "yes" indicator at the preamble match step 404 may be used to gate an ACK/NAK reverse channel transmitted from the MSs.

Please replace the paragraph starting at page 16, line 27 with the following amended paragraph:

Input data of the traffic channel is encoded in an encoder 612 and block interleaved in a block 614 before Walsh covered in a multiplier 616. A gain element 618 adjusts the gain of the traffic channel. The result passes through multipliers 650B and 650D for channel spreading. The DRC message is encoded in a DRC encoder block 626. A Walsh generator 624 generates the Walsh functions for Walsh covering the encoded DRC message in a multiplier 628. Walsh covered DRC message and pilot data are multiplexed in a MUX block 630. The results are summed in summer 694 with the gated NAK/ACK channel. The results of the summer 694 are channel spread in multipliers 650A and 650C. Code generators 642 and 644 generate long and short codes. The codes are ~~muliplied~~ multiplied in multipliers 646A and 646B to generate PN-I

and PN-Q. A block 640 may provide the timing and control functions. The PN-I and PN-Q are used for channel spreading performed by ~~multiplers~~ multipliers 650A-650D. The results of multipliers 650A-650D passed through filters 652A-562D. The outputs of filters 652A and 652B are summed in a summer 654A to generate I-channel, and outputs of filters 652C and 652D are summed in a summer 654B to generate the Q-channel.